Figure 1: Primitive Operations and Notation.

identity	$\mathbf{id}:x = x$
error	$\mathbf{err}:x = \bot$
selectors *si*	$\mathbf{s3}:\langle x_1, \ldots, x_n \rangle = x_3$
empty test	$\mathbf{isnull}:x = \mathbf{true}$ iff $x = \langle\rangle$
tail	$\mathbf{tl}:\langle x_1, \ldots, x_n \rangle = \langle x_2, \ldots, x_n \rangle$
append to left	$\mathbf{al}:\langle x, \langle y_1, \ldots, y_n \rangle \rangle = \langle x, y_1, \ldots, y_n \rangle$
constant	$\tilde{}x:y = x$ $(y \neq \bot$ in FP.)
construction	$[f_1, \ldots, f_n]:x = \langle f_1:x, \ldots, f_n:x \rangle$
composition	$(f \circ g):x = f:(g:x)$
conditional	$(p \rightarrow f; g):x =$ $f:x$ if $p:x = \mathbf{true}$; $g:x$ if $p:x = \mathbf{false}$; $\bot$ otherwise
apply to all	$\alpha:f:\langle x_1, \ldots, x_n \rangle = \langle f:x_1, \ldots, f:x_n \rangle$
catenate	$\mathbf{cat}:\langle\langle x_1 \ldots \rangle, \langle \ldots x_n \rangle\rangle = \langle x_1, \ldots, x_n \rangle$
infix cat	$f +\!+ g = \mathbf{cat} \circ [f, g]$